

**FINAL ENVIRONMENTAL ASSESSMENT
STATEMENT OF FINDINGS
AND
FINDINGS OF NO SIGNIFICANT IMPACT**

File No. 200600845

S.S.I. Doublehead Resort, Inc. Application
for Proposed Community Docks, Private Piers, Public Fishing Piers and
Dredging for Boat Access Channels at
Town Creek Embayment, Tennessee River Mile 272.2R,
Wilson Lake, Lawrence County, Alabama

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1.0 Proposed Activity

1.1. Background. S.S.I. Doublehead Resort, Inc. (applicant) submitted an application for a Department of the Army (DA) permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 for proposed construction of community docks, private piers, public fishing piers, and dredging for boat access channels at the Town Creek embayment, confluence with Tennessee River Mile 272.0L, on Wilson Lake, in Lawrence County, Alabama. Public Notice 06-113 was issued on 17 October 2006 for the proposed construction activities (see Appendix A for public notice with project description and location map).

Numerous onsite inspections and pre-application meetings were held with the applicant concerning the proposed work. See Appendix B for Memorandum for Records (MFRs) dated 11 May 2006, 2 August 2006, 4 October 2006, and 29 November 2006. The MFRs also provide photos of the proposed project sites. Prior to the application submittal of the proposed work, the applicant provided a Wetland Delineation Report, dated 23 June 2006, performed by GEO Source, Inc (See Appendix C). The Corps of Engineers Regulatory Decatur Field Office verified the wetland delineation onsite on 18 July 2006 and provided a verification letter to the applicant on 7 August 2006 (See Appendix C). Approximately 8.8-acres of jurisdictional wetlands were located on the applicant's property, mainly consisting of a shallow water fringe around the lake's shoreline. However, the applicant designed the proposed activities to avoid dredging and/or discharging fill material into the 8.8-acres of wetlands on the property. The only impact to the wetlands would involve construction of boardwalks to the private fishing piers and community docks over the fringe wetland areas. This boardwalk construction would not involve agency permitting requirements. TVA required special conditions to be placed on the delineated wetland area in order to reduce any potential impacts to the wetland and provided these conditions to the applicant by letter dated 25 May 2006. Also, this letter outlined conditions to avoid any impacts to a known cultural resource site on the property. The applicant agreed to the conditions by signed concurrence letter dated 12 June 2007 (See Appendix D). Therefore, if issued, the DA and TVA permits would incorporate the special conditions as outlined in the TVA letter to reduce impacts to the wetlands and cultural resources on the property.

1.2. Decision Required. Section 10 of the Rivers and Harbors Act of 1899 prohibits the alteration or obstruction of any navigable waters of the United States unless authorized by the Secretary of the Army acting through the Chief of Engineers. The location of the proposed work is a navigable water of the United States as defined by 33 CFR Part 329. A DA permit is required for the work; therefore, the Corps of Engineers must decide on one of the following:

- a. issuance of a permit for the proposal
- b. issuance of a permit with modifications or conditions
- c. deny the permit

1.3. Other Approvals Required. Other federal, state, and local approvals required for the proposed work are as follows:

Tennessee Valley Authority (TVA) approval under Section 26a of the TVA Act is required for the proposed work. In addition to other provisions of its approval, TVA would require the applicant to employ best management practices to control erosion and sedimentation, as necessary, to prevent adverse aquatic impacts. TVA forwarded the applicant a letter dated 25 May 2007, outlining specific project conditions that would be incorporated into the 26a permit for the proposed work (See Appendix D). The applicant agreed to the conditions by signed concurrence letter dated 12 June 2007 (See Appendix D).

2.0 Public Involvement Process.

On 17 October 2006, Public Notice 06-113 was issued to advertise the proposed work. All responses are included in Appendix E. A summary of the responses follows:

a. The U.S. Fish and Wildlife Service (USFWS) responded by letter dated 13 November 2006, stating that according to their records, there are no known sites of threatened and endangered (T&E) species or critical habitat in the proposed project site or in the vicinity (within a mile radius) of the project footprint. Thus, it is their belief that requirements of Section 7(c) of the Endangered Species Act of 1973, as amended, are fulfilled. No significant adverse effects to fish and wildlife, their habitats and human uses thereof are expected to result from the proposed work. The USFWS recommended that best management practices (BMPs) are implemented to minimize adverse impacts to fish and wildlife resources and should be employed prior to and maintained throughout the duration of the project to avoid or minimize sedimentation and turbidity in the waterways. The USFWS recommends that the proposed dredging activities occur during low water or normal winter pool (NWP) conditions where barge access and water depth are not an issue to safely accomplish the proposed work. Performing the work during NWP conditions would help limit potential adverse impacts on the aquatic biota and water quality conditions. They also recommend that the applicant use tug boats that have the capacity to direct their propeller wash away from river bottom substrates to minimize substrate disturbance; construction materials utilized in building the docks should be Environmental Protection Agency (EPA) approved materials to ensure no adverse environmental impacts occur to the aquatic biota or water quality; and residential homeowners accomplish any future maintenance dredging activities at one time around the community docks to reduce environmental impacts to the waterways.

b. The state of Alabama, Department of Conservation and Natural Resources (DCNR), responded by letter dated 16 November 2006, stating that they have no objection provided that: 1) the proposed project will not impact habitat types known to support protected species and the

coordination is required with the USFWS; 2) no net loss of stream or wetland functions occurs as a result of the project; 3) state water quality standards are strictly adhered to and 4) the recommend the use of riprap rather than sea walls to protect the shoreline from erosion.

c. The applicant had previously submitted a report to the Alabama Historical Commission (AHC) titled “*A Cultural Resources Reconnaissance Survey of the Proposed Land Development along Town Creek in Lawrence County, Alabama*” dated 14 June 2006, performed by The University of Alabama, Office of Archaeological Research (See Appendix F). The AHC responded to the proposed work in the public notice and the previously submitted survey report by letter dated 20 November 2006. They indicated that they approved the Phase II archaeological testing proposal in the survey report for site 1La141. They also requested that site 1La131 be tested to determine its National Register of Historic Places (NRHP) eligibility.

After further coordination with the applicant, TVA provided a letter to the AHC dated 8 May 2007, regarding the cultural resource determination of the property (See Appendix F). The letter indicated that the two sites were considered potentially eligible for inclusion in the NRHP. A property survey and engineering plans depict site 1La131 as outside the property owned by Doublehead, Inc. and therefore, the proposed undertaking would have no effect upon site 1La131. The letter also stated that Site 1La141 is located within the property boundary and Doublehead would prefer to prevent adverse effects to the site through avoidance measures. In order to prevent adverse effects to the site, the following conditions would be incorporated into the permits, 1) a 100-foot protective buffer would be established around Site 1La141 which would be marked by a permanent obstructive barrier and the site and barrier would be left undisturbed and 2) Doublehead would not sell, assign or otherwise alienate Site 1La141 and buffer area to a third party, in whole or in part, without placing a restriction in the transfer agreement that prevents disturbance of the site and buffer area. This letter was also provided to The Cherokee Nation for review and comment by letter dated 8 May 2007 (See Appendix F). AHC responded by letter dated 14 June 2007, stating that while it appears that a portion of site 1La131 is within the project boundary, it must be avoided by all project-related activities. AHC also agrees with the proposed measures to avoid and protect site 1La141. They request a site visit by TVA and AHC in order to verify avoidance of the sites. With these stipulations, AHC concurs with the project activities (See Appendix F). Thus, if issued, the DA and TVA permits would incorporate these conditions.

3.0 Environmental and Public Interest Factors Considered

3.1. Introduction. 33 CFR 320.4(a) states the decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. All factors that may be relevant to the proposal must be

considered. Public Notice 06-113 listed those factors. The following sections show which factors are relevant and provides a concise description of the impacts.

3.2 Site Description. Several onsite inspections and meetings have been performed by the Corps of Engineers and TVA. MFRs of the onsite inspections with project photos can be found in Appendix B. Wilson Reservoir was created by the construction of Wilson Lock and Dam by the U.S. Army Corps of Engineers in 1925. The TVA Act of 1933 transferred ownership of Wilson to the TVA, which then constructed nine other dams with locks to complete the commercially navigable, 800-mile Tennessee River Waterway with the intent of bringing electricity and economic development to the Tennessee River Valley. The Tennessee River Waterway is linked to the 12,000 mile National Inland Waterway in several places, and supports national and international commerce. The site of the proposed work is at the Town Creek embayment at the confluence of Tennessee River Mile 272.0L. According to TVA's website, www.tva.com/sites/wilson, Wilson Reservoir has a normal pool area of 15,500 acres with 150 shoreline miles. The water elevation varies annually between 504.5 and 507.7. Wilson has wide unobstructed views from the water because it has virtually no islands and is approximately one mile wide near Wilson Dam and averages over a mile in width throughout its length. There are no bridges across the mainstream reservoir and no aerial powerline crossings that might obstruct navigation. There are no underwater hazards to navigation on the mainstream reservoir. Under normal conditions the annual pool level of Wilson only varies approximately 3 feet and routinely has daily fluctuations of one to two feet making it a very desirable lake for recreational boating. While the wide open nature of Wilson is desirable, the recreational value of the reservoir is hampered by the lack of coves for private anchorages by recreational boaters as well as transient boaters.

TVA's dam reservations at Wilson and Wheeler include public lake access facilities. With the exception of the City of Florence's Veterans Park which was formerly part of Wilson Dam reservation there are only two other small parcels of public land on Wilson, Lock Six boat ramp and a small state-operated boat ramp at Marina Mar. All other shoreline property on Wilson and its tributaries is privately owned. The shoreline is characterized as developed residential and includes 1,822 active private water use facility permits according to the Watershed Team records. Each landowner adjoining the water has rights of private water access. The result is that the recreating public has very limited opportunities for viewing and accessing Wilson Reservoir unless they own a residential lot or a boat.

Onsite meetings were performed by Corps of Engineers and TVA personnel throughout the application processing for the proposed project. Pre-application meetings and informational meetings were held concerning the project with the applicant (See Appendix B for MFRs).

The TVA website (<http://www.tva.com/environment/ecohealth/wilson>) provides information concerning Wilson Lake. A copy of the website information concerning Wilson Reservoir, ecological health rating, swimming advisories, fish consumption advisories, sport fishing ratings,

sportfish survey results, and water release information is found in Appendix G. The website also contains information concerning dissolved oxygen, chlorophyll, fish community, bottom life, and sediment levels. Waterbodies where fish tissue has levels of contamination that pose a higher than acceptable risk to the public are posted and the public advised of the danger. The project site is not known at this time to create a public safety issue for contamination. There are no swimming advisories and/or fish consumption advisories in Wilson Reservoir. The website information indicated that the overall ecological health condition in Wilson Reservoir was rated fair in 2004. The reservoir ratings for Wilson have fluctuated in a pattern that generally follows reservoir flow conditions. Like most Tennessee River mainstem reservoirs, Wilson tends to rate better in wet years and worse in dry years.

Town Creek originates in Lawrence County and flows generally northwest before joining the Tennessee River at Mile 272.0L. The headwaters of Town Creek flow primarily through rural, sparsely populated, agricultural lands. The proposed project is located within the embayment area of Wilson Reservoir; thus, the project is located within the backwaters of Wilson Lake and experiences rise and fall of the pool elevations. The normal summer pool (NSP) elevation of Wilson Lake is 507.5' and the normal winter pool (NWP) elevation is 504.5'.

The proposed project site for development would be located on the east bank of the Tennessee River (left descending bank) and embayment of Town Creek. The majority of the upland portion of the project site is owned by the applicant (private ownership). The upland portion of the project site has been disturbed in the past from the existing Doublehead Resort facilities, such as rental cabins (now for sale for private ownership), convention/meeting facilities, a restaurant, boat rentals, horseback riding, beach area, etc. The proposed work evaluated by this document would be additional facilities for the Doublehead Resort expansion (Phase II). All other existing and proposed facilities involving work within jurisdictional waters have been previously permitted by the Corps and TVA. Across the Town Creek embayment, is the location of the old, abandoned The Point Marina and Restaurant. However, the Corps and TVA have recently permitted new marina facilities at this location, now known as Shoals Landing Marina.

3.3. Physical/Chemical Characteristics and Anticipated Changes. The relevant blocks are checked with a description of the impacts.

(x) substrate – The Tennessee River and Town Creek at the project site, consists of a deep, slow-flowing pool habitat with accumulated sediment and gravel covering the lake bottom. The only substrate impacts would be from the proposed dredging activity to create an access channel to seventeen of the private piers. The dredging would be a 100' wide channel by 2,000' long. The area would be dredged to bottom Elevation 499.0', which is 8.5' below the NSP elevation 507.5' for Wilson Lake and 5.5' below the NWP Elevation 504.5'. The area would be excavated for deeper

water depths, but it is expected that the removal of sediments would result in the same substrate conditions. Maintenance dredging is expected to occur at some point in the future to remove any accumulated sediment build-up within the access channel. However, it is not expected to change the bottom substrate. According to TVA's website information, Wilson Lake has no state advisories against swimming and there are no fish consumption advisories. Because there have been few industrial activities in the vicinity that may have contaminated sediments, there is no reason to suspect that sediments are contaminated with PCB's or any other recognized environmental contaminant. The dredged material would be disposed at a designated upland disposal site and contained; therefore, no impacts to the bottom substrate would occur from disposal of the dredged material.

(x) suspended particulates, turbidity – Turbidity levels are expected to increase during construction of the access channel. The applicant proposes to perform the dredging by a clamshell from a barge and load the material on a truck and haul it off to an upland disposal site. Turbidity levels would be minimized by requiring the applicant to perform the dredging during the winter drawdown period when water levels are lower. Therefore, if the DA and TVA permits are issued, it is recommended to condition the permit to perform the dredging activity during winter drawdown period, if adequate water levels allow the barge access. Also, any increase in turbidity levels would be temporary and would quickly dissipate within the river currents.

Maintenance dredging would produce a chance for increased turbidity levels. However, as with the original proposal, the dredging should be performed during winter drawdown periods. This office would be contacted at least 30 days prior to maintenance dredging activities to commence. It is recommended, if issued, the DA permit should incorporate these maintenance dredging measures.

(x) water quality (temperature, color, odor, nutrients, etc) – Overall, Wilson Lake has good water quality. Water quality conditions at the subject location are expected to be typical of those throughout Wilson Lake. The proposed work would create some impacts upon the water quality from the dredging operation. The dredged material would be hauled to an upland contained disposal site. The applicant indicated that the disposal material would be contained and stabilized to prevent runoff; thus, any return water from the disposal site is expected to be clean water. Water quality certification from the state of Alabama was not required for the proposed activities.

(x) flood control functions - There would not be any impacts to flood control functions since there will be no loss of reservoir storage. The applicant would be responsible for designing the marina facilities to accommodate the floodwater velocities, volume and elevation changes. The dock equipment should be designed to accommodate the elevational changes and debris associated with flood events. It is recommended that the DA and TVA permits, if issued, be conditioned to advise the applicant of the dock and marina design conditions during flood events.

Continuing maintenance activities as part of normal harbor operations would remove debris from the Tennessee River and/or Town Creek flow.

(x) storm, wave and erosion buffers - The applicant has not proposed bank stabilization methods for the proposed work. However, it would be encouraged that the applicant stabilize the shoreline if erosion were to increase with additional boat traffic in the area. It is recommended to condition the DA permit, if issued, that the applicant consider planting trees along the top of the riverbanks for bank stabilization efforts and to provide bio-engineering stabilization opportunities if erosion were to increase.

3.4. Biological Characteristics and Anticipated Changes. The relevant blocks are checked with a description of the impacts.

(x) special aquatic sites (wetlands, mudflats, pool and riffle areas, vegetated shallows, sanctuaries and refuges, as defined in 40 CFR 230.40-45) – Wetlands on Wilson reservoir are typically narrow reservoir/fringe wetlands associated with the shoreline and small areas of forested wetlands associated with coves of tributary streams. National Wetland Inventory (NWI) maps indicate a diverse mix of wetland habitat types in the Town Creek embayment, including aquatic bed, emergent, scrub-shrub, and forested wetlands. Approximately 8.8-acres of wetlands were delineated within the proposed project area. A mix of scrub-shrub, forested, and emergent habitat types, the wetlands generally form a strip paralleling the shoreline from the existing Doublehead development to the transmission line near the mouth of Town Creek (between miles 0 and mile 2 of Town Creek).

Tree species in the wetlands consists of silver maple (*Acer saccharinum*), sugarberry (*Celtis laevigata*), sycamore (*Platanus occidentalis*), elm (*Ulmus spp.*), black willow (*Salix nigra*), and overcup oak (*Quercus lyrata*). Dominant shrub species include alder (*Alnus serrulata*), as well as saplings of the tree species mentioned above. Invasive species are prevalent, and include honeysuckle (*Lonicera spp.*) and privet (*Ligustrum spp.*). False nettle (*Boehmeria cylindrica*), jewelweed (*Impatiens capensis*), rice cutgrass (*Leersia spp.*), and smartweed (*Polygonum spp.*) were associated with emergent wetland types in the project area.

The wetlands in the proposed project, because they are a mix of habitat types, provide important, local wildlife habitat for wetland dependent species. In addition these areas provide some flood control, erosion control, and water quality improvement functions.

Construction of two community docks, 19 piers, and the proposed dredge of an area 2,000' long by 100' wide as part of Phase II Doublehead resort expansion will have minor effects on wetlands in the immediate project area. Wetland areas will be spanned/bridged by walkways to the water use facilities, and no fill will occur in these areas. It is recommended that the DA and TVA permits incorporate the following special conditions to further protect the wetlands:

- There shall be no removal, destruction, cutting, trimming, mowing, alteration or spraying with biocides of any vegetation, nor any disturbance or change in the natural habitat in any manner without prior written approval from the Tennessee Valley Authority. There shall be no planting of non-native vegetation.
- There shall be no agricultural, commercial, or industrial activity undertaken or allowed. Furthermore, nothing herein shall preclude the maintenance, repair, or replacement of existing utilities located in the wetland area or any activity in connection therewith.
- There shall be no filling, excavating, dredging, mining, or drilling; nor removal of topsoil, sand, gravel, rock, minerals or other materials; nor any dumping of ashes, trash, garbage, or of any other material; and no changing of the topography of the landing in any manner.
- There shall be no construction or placing of buildings, mobile homes, advertising signs billboards, or other advertising material, or any other structures.
- There shall be no disruption of flow pattern by damming, dredging or construction in any free flowing water body, nor construction of any weirs, groins, or dikes in any marshland, nor any manipulation nor alteration of natural water courses, ponds, marshes, wetlands or other water bodies nor any activities detrimental to water purity.
- Other than utility vehicles, there shall be no operation of dune buggies, motorcycles, all-terrain vehicles, or any other types of motorized or non-motorized vehicles in the wetland area outside of designated path to the pavilion, playground and fishing piers.
- There shall be no construction or placing of temporary or permanent buildings, bridges, docks, piers, or other structures without prior written approval from TVA and the Corps of Engineers.
- The wetland boundary shall be marked in a sufficient manner as to make users and property owners aware of the area and restrictions of activities within the area.
- S.S.I. Doublehead will not sell, assign, or otherwise alienate the wetland as delineated on the enclosed map to a third party, in whole or in part, without placing a restriction in the transfer agreement that prevents disturbance of the wetland area.

Portions of the wetland area would be deeded to the Doublehead homeowner's association and other portions may be sold with individual lots; however all wetlands will be subject to the special conditions described above. Some minor, incremental clearing and cutting of wetland vegetation may occur as the result of mowing and maintenance activities, but these effects would be minor over the long-term. It is anticipated that no cumulative impacts to wetlands in the region would occur as the result of this project. In addition, the applicant has attempted to avoid the jurisdictional wetlands with the design of the proposed facilities and new residential homes to the extent possible.

(x) habitat for fish and other aquatic organisms – Physical habitat of the project site appears adequate to support the type of fish species common in backwater/pool systems. No rare, threatened, or unusual fish species are expected to occur at the project site. Typical fish species expected at the site include largemouth bass, smallmouth bass, bluegill sunfish, redear sunfish,

longear sunfish, redbreast sunfish, warmouth, catfish, freshwater drum, striped shiner, brook silverside, longnose gar, spotted sucker, and gizzard shad. TVA's website information includes a Sport Fishing Index Rating (See Appendix G) to help anglers decide where they have the best chance of catching their favorite types of fish and reflect fishing quality for different species. The index rating for Wilson Lake in 2004 indicates that black bass rated 38, largemouth bass rated 38, smallmouth bass rated 42, and spotted bass rated 26.

The proposed work would impact the habitat for fish and other aquatic life temporarily during construction of the access channel. However, these impacts are expected to be minimal because the type of species located along this stretch of the Tennessee River is typical of impounded conditions and the dredging is temporary in nature. In addition, it is expected the same benthic macroinvertebrate would be found in the access channel location as the entire project site. It is expected that over a period of time, the benthic organisms will invade the dredged area and may provide a more diverse population by removal of silt material. Benthic recruitment into the area would come from adjacent undisturbed areas and from larval drift. Also, a special condition would be recommended to start the excavation approximately 10' lakeward of the NSP, therefore, minimizing the impacts to the shallow water areas. This would ensure the integrity of the existing shallow water and protect its valuable biological productivity. A recommended special condition would require the dredging to be performed after 30 June of the year and/or during NWP elevations in order to avoid adverse impacts upon fish spawning seasons. In addition, the construction of the docks in the embayment would provide additional shading of the water for the aquatic life.

(x) wildlife habitat – The proposed work would involve the transformation of an upland area to residential homes, associated community facilities, and disposal site. The majority of the project site has been impacted in the past from previous vegetation clearing activities and the location of the existing Doublehead resort facilities. Most all trees, except for fringe areas, have been removed from the site and presently consist of open fields. Therefore, the impact to wildlife habitat on the private land would be very minimal. This area and Wilson Lake are undergoing a lot of development, which is expected to continue to result in the loss of other undisturbed properties. This area is especially expected to develop due to the construction of the adjacent golf course and other residential developments. There are no unique wildlife habitat features of the area affected by the permits. Because upland development would take place whether or not the TVA and DA permits were issued, the proposed action would not contribute to any ongoing wildlife habitat losses in the area. The construction of the upland disposal sites would create an impact upon the wildlife habitat from the additional land disturbance.

(x) endangered or threatened species – A literature search has been conducted regarding endangered and threatened species. No species listed as endangered or threatened would be affected by the proposed construction activities.

(x) biological availability of possible contaminants in dredged or fill material – According to TVA’s website information, Wilson Lake has no state advisories against swimming and there are no fish consumption advisories. Accordingly, there is no evidence that the site is contaminated by PCBs or another recognized environmental contaminant.

3.5. Human Use Characteristics and Anticipated Impacts. The relevant blocks are checked with a description of the impacts.

(x) existing and potential water supplies; water conservation – The nearest existing water intake is operated by Southern Reclamation for an industrial intake at Tennessee River Mile 262.0L. This intake is located approximately 10 miles downstream of the project and it not expected to be impacted from the proposed work. There are no municipal water intakes located downstream of the proposed work to the Wilson Lock and Dam. Therefore, the proposed work is not expected to impact any existing water supplies and/or water intakes.

(x) water-related recreation – The proposed improvements include the construction of two community boatslip facilities, two fishing piers, nineteen individual day-use boat docks, and dredging for boating access to the docks. The proposed dredging, private docks, community docks, and public fishing piers would provide increased recreational navigation benefits to the owners of the homes in the development. The dredging would provide safer recreational navigation and adequate water depth during the summer and winter for access to the homeowner’s piers and the community boatdocks.

(x) aesthetics – The development of the embayment creates an impact upon the aesthetics by the transformation from a natural undisturbed embayment to a developed residential area. However, some of the shoreline has been impacted from construction of piers and a boathouse for the existing Doublehead resort facilities. The Corps of Engineers and TVA have worked with the applicant in order to minimize the aesthetic impacts from the construction of the facilities and the avoidance of the natural fringe wetlands along the shoreline. The fringe wetlands would remain undisturbed, except for boardwalks, which would allow a natural strip of land to remain undisturbed which would help break the view of the development from the lake.

(x) navigation – Wilson Reservoir is an important link in that waterway system. While there are several commercial terminals on Wilson Reservoir, most of the commercial traffic on Wilson Lake passes through the reservoir to other pools and waterways. In 2004, about 12.5 million tons of commercial cargo were transported by barge on Wilson Reservoir. Town Creek is not commercially navigable, but enters the reservoir just below Wheeler Lock and Dam.

At the confluence of the Tennessee River and Town Creek, where the proposed development would occur, the navigation channel is the full width of the reservoir. In other words, the reservoir is of sufficient depth to accommodate a commercial towboat and its barges (called a tow) at any point between the banks in the vicinity of the Town Creek. This is true for the length of Wilson Reservoir. The actual sailing line for commercial traffic hugs the opposite shoreline (north shore or right descending bank) at mile 272 where Town Creek enters the Tennessee River. The sailing line is the path that commercial tows typically take as they move up- and downstream, and is typically as much of a straight line as possible because straight-line distances are the most fuel efficient. The inundated Hog Island is just downstream of the mouth of Town Creek. Two pile structures with daymarks identify the location of the shallow area. A two-mile recreational channel into Town Creek is marked by secondary channel buoys from Hog Island to the Shoals Landing commercial marina on the left descending bank. There are no other navigation aids in the Town Creek embayment.

The Town Creek embayment is very wide as it nears the mouth of the creek, measuring roughly 3000 feet across. There are several small islands at the mouth that are part of the Shoals Landing complex, which operates on the left bank at the confluence of Town Creek and the Tennessee River. From the upstream end of the Phase II project, the embayment is 3000 feet wide. From the downstream end of the development, it is about 1600 feet across the embayment to the larger of the Shoals Landing islands and about 300 feet to the marked recreation channel.

Shoals Landing Marina proposes to ultimately provide slips for 315 boats inside the Town Creek embayment, sell fuel and other marine supplies, and operate a restaurant. This complex would be on the opposite bank from the proposed Phase II developments at Doublehead Resort.

There are two potential direct impacts to navigation should the proposed facilities be constructed and two possible indirect impacts. Direct impacts include the requirement for additional aids to navigation and harbor limits. A potential indirect impact would include increased boating congestion and a possible decrease in boating safety.

If the community facilities and private docks are constructed as proposed, no new navigation aids would be required. TVA maintains the marked recreation channel at the entrance to Town Creek, but does not anticipate that any changes would be necessary to accommodate the proposed facilities.

Harbor limits are typically set for those facilities which anticipate expansion, or wish to institute a 'no-wake' zone. The applicant has not requested harbor limits for the community facilities, therefore no harbor limits or no-wake zones will be established.

Boating congestion and associated boating safety concerns are an indirect impact of the proposed development. If the community facilities and individual docks are constructed as proposed, additional boaters can be expected to use the Town Creek embayment and the passage to the

Tennessee River. The entrance to the Town Creek embayment at the Tennessee River is over a mile wide at this location and there is sufficient room to accommodate both commercial and recreational traffic. Boating safety should always be a concern for the public, particularly since law enforcement agencies responsible for marine safety (TVA Police, U.S. Coast Guard, Alabama Marine Police of the Department of Conservation and Natural Resources) are not able to patrol all of the waters in their jurisdictions all the time. These agencies rely heavily on public involvement.

Users of Wilson Reservoir and its tributaries are fortunate in that members of the concerned public have formed a Lake Watch program with the assistance of the TVA Police Western Division. Those concerned with boating safety in the Town Creek embayment or the general vicinity are urged to join the Shoals Area Lake Watch program (more information is available at <http://www.tva.gov/abouttva/tvap/lakewatch>). Unsafe or suspicious boating may be reported to the TVA Police at 256-386-2444. The State of Alabama is also addressing the boating safety issue. The Roberson/Archer Act of 1994 requires that every person over the age of 12 who operates a motorized vessel (including PWC) on the waters of Alabama must first obtain an Alabama Boater Safety Certification or possess comparable USCG certification.

The proposed improvements include the construction of two community boatslip facilities, two fishing piers, nineteen individual day-use boat docks, and a 2000' dredge for boating access to the shoreline. Usually community docks are the preferred alternative for new developments of this type. However, due to the limited space in the embayment, one community dock would interfere with the adjacent property owner's navigation to his property. Thus, the applicant proposed two community docks. The boatslips were designed to not extend over 1/3 the distance across the embayment in order to not impact the public's and adjacent property owner's recreational navigation opportunity in the embayment. The proposed work would greatly enhance each homeowner's opportunity for recreational navigation. Navigation technical specialists find that if the community facilities, fishing piers, and individual docks are constructed as shown on the plans and the following conditions are met, there would be no adverse impacts to navigation:

- The applicant is advised that the facilities will be located adjacent to a recreational channel and may be subject to wave wash from passing vessels and possible collision damage.
- The two community slip structures are not to exceed 140' in lakeward extent and should be located as indicated on the plan submitted in the application.
- The two fishing piers are not to exceed 150' in lakeward extent and should be located as indicated on the plan submitted in the application.
- Private, individual day-use docks are not to exceed 140' in total lakeward extent and should be located as indicated on the plan submitted in the application.
- Any floating structures should be securely anchored to prevent them from floating free during a flood event.

- Any fixed structures must have a floor elevation at least 1.5 feet above the normal summer pool elevation of 507.5' above msl.

(x) safety – The accumulation of sediment in the embayment creates an obstacle for maneuvering a boat in the area. Therefore, the proposed dredging would provide safer boating access from the lake to the homeowner's piers and community docks. It is expected that the infrastructure is designed to accommodate anticipated flood water elevations. If issued, it is recommended that the DA permit be conditioned to advise the applicant of the design criteria for flood events. Also, TVA Navigation staff recommended conditions that would minimize the boating and navigation impacts in the area.

(x) air quality – Emissions that are expected to result from the project would be temporary from construction equipment and dust. However, since the majority of the project has been cleared, it is anticipated that the proposed activities would not exceed de minimus levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR part 93.153 (See Section 5.3). While it is expected that construction could increase fugitive dust in the vicinity of the project during dry periods, this impact would only be temporary and could be minimized by applying water on the construction site.

(x) noise – Construction of the work would create some noise impacts. However, it is expected that the construction activities would be performed during the daylight hours, would be temporary, and would be performed within normal ranges for construction equipment.

(x) historic properties and cultural values – Human occupation of northern Alabama has occurred from the Paleo-Indian to the Historic period. In northern Alabama, prehistoric archaeological chronology is generally broken into five broad time periods: Paleo-Indian, Archaic, Gulf Formational, Woodland, and Mississippian. Prehistoric land use and settlement patterns vary during each period, but short- and long-term habitation sites are generally located on flood plains and alluvial terraces along rivers and tributaries. Specialized campsites tend to be located on older alluvial terraces and in the uplands. European interactions with Native Americans in this area began in the 17th and 18th centuries associated with the fur trading industry. The first permanent occupation of Northern Alabama by Europeans, Euro-Americans, and African-Americans occurred in the late 18th century. Various excursions and temporary settlements by the British, French, and Spanish occurred prior to this period. From the 1840s to the mid 20th century, northern Alabama was a major cotton growing area. Settlement and land use of the area remained primarily rural until the mid 20th century, at which time industry and urbanization increased.

Three archaeological surveys have been conducted in the Doublehead Resort project area (Cottier and Cottier 1976; Hollis 1995; Hawsey). Archaeological sites 1La143, 144, 146, and 151 were identified in a survey of the Phase 1 Doublehead Resort Development. Archaeological

sites 1La144 and 1La146 are described as shallow scatters of stone tool debris and are recommended ineligible for the National Register of Historic Places (NRHP). Archaeological site 1La143 is described as a prehistoric habitation sites potentially eligible for the NRHP. The Alabama State Historic Preservation Officer (SHPO) confirmed the eligibility determinations recommended by the University of Alabama, Office of Archaeological Research (OAR) and TVA concurs with these recommendations as well. Site 1La43 was subsequently destroyed during the construction of the Phase 1 Doublehead Resort Development. Site 1La151 is described as a historic-modern cemetery. Cemeteries are rarely eligible for the NRHP but are protected by Alabama State Law 93-905 and require a state permit for cemetery abandonment, removal, and reinterment. Site 1La151 underwent cemetery relocation in March of 2007. A previously unidentified archaeological site was discovered within the cemetery boundaries during the relocation project, but the site did not fall under the jurisdiction of TVA's 26a permitting authority and thus was not assessed for NRHP eligibility.

An archaeological survey of the Phase 2 Doublehead Resort Development resulted in no new archaeological sites identified and the relocation of four archaeological sites: 1La131, 137, 140, and 141. Archaeological sites 1La137 and 140 are described as shallow scatters of stone tool debris and are recommended ineligible for the NRHP. Archaeological sites 1La131 and 1La141 are described as prehistoric habitation sites and are recommended potentially eligible for listing in the NRHP. Further NRHP evaluation or avoidance is recommended for sites 1La131 and 141. Site 1La131 lies outside of the project area of potential effect. After further coordination with the applicant, TVA provided a letter to the AHC dated 8 May 2007, regarding the cultural resource determination of the property (See Appendix F). The letter indicated that the two sites were considered potentially eligible for inclusion in the NRHP. A property survey and engineering plans depict site 1La131 as outside the property owned by Doublehead, Inc. and therefore, the proposed undertaking would have no effect upon site 1La131. The letter also stated that Site 1La141 is located within the property boundary and Doublehead would prefer to prevent adverse effects to the site through avoidance measures. In order to prevent adverse effects to the site, the following conditions would be incorporated into the permits, 1) a 100-foot protective buffer would be established around Site 1La141 which would be marked by a permanent obstructive barrier and the site and barrier would be left undisturbed and 2) Doublehead would not sell, assign or otherwise alienate Site 1La141 and buffer area to a third party, in whole or in part, without placing a restriction in the transfer agreement that prevents disturbance of the site and buffer area. This letter was also provided to The Cherokee Nation for review and comment by letter dated 8 May 2007 (See Appendix F). AHC responded by letter dated 14 June 2007, stating that while it appears that a portion of site 1La131 is within the project boundary, it must be avoided by all project-related activities. AHC also agrees with the proposed measures to avoid and protect site 1La141. They request a site visit by TVA and AHC in order to verify avoidance of the sites. With these stipulations, AHC concurs with the project activities (See Appendix F). Thus, if issued, the DA and TVA permits would incorporate these conditions.

There are eleven historic properties listed on the NRHP in Lawrence County. These sites are not located near the project area. Thus, no other historic properties were located within the project area.

(x) land use classification and conservation - Lawrence County is the responsible agency for local zoning and land-use classification of the proposed project site; therefore the project would have to comply with the county's local zoning regulations. Also, the project site is the expansion of an existing resort development.

(x) economics – It is anticipated that the proposed work would provide a beneficial economic benefit to the applicant. Also, by providing enhanced navigation opportunities for the homeowners, greatly increases the economic value of the properties. Also, an economic benefit would be realized by the contractor performing the work. The construction of the marina facilities would increase the work force opportunities in the area. Also, the operation and maintenance of the facilities would require additional jobs and labor. In addition, the construction of the residential homes would require a large amount of jobs for an extended period of time. Therefore, the project would provide a large economic benefit to the local workforce, contractors and subcontractors developing the site, and from the sale of materials for the project. In addition, to the positive employment benefits, the new project would provide immediate and short-term positive economic impacts of county development taxes, adequate facilities taxes, building permit fees, water and sewer improvements, and initial investment for a total of immediate financial impacts. Therefore, a large economic increase to the tax base of the Lawrence County area would be realized. It is anticipated that the project would have positive annual economic impacts to the area of permanent job creation, part-time job creation, tourism, sales tax revenue, and property tax revenue. Other economic benefits resulting upon the project completion could be realized from fuel sales, retail from marina stores, and restaurants (onsite and offsite). With the addition of the upscale residences, retail sales in the north Alabama area are expected to be positive distributed among restaurants, fuel, grocery stores, and specialty shops, etc., thus, producing a large economic benefit to the area's existing and future shops. It is expected that the proposed work would also economically benefit the applicant from the sale of the homes and docking facilities.

(x) mineral needs – It is not anticipated that the proposed project would have any impacts on mineral needs.

(x) consideration of private property – No objections were received from adjacent property owners concerning the impacts of the proposal to the area.

(x) general environmental concerns – While the piers, community boatslips, and/or dredging for boat access channel could not be constructed without requiring a DA or TVA permit,

the proposed project site could be developed with residential and/or commercial development without either approval. Therefore, other projects would also create impacts to wildlife, water quality, conservation, aesthetics, noise, land-use, traffic, etc. Some impacts from the development may or may not provide mitigation measures to offset these impacts as required from the proposed work, such as mitigation measures to place the wetlands and cultural resource sites within a conservation area. In addition, some of these impacts could be greater than those of the proposed project such as aesthetic values, all while producing a number of public benefits through the increased water-related recreation opportunities. Other developments may or may not provide the economic benefits for the area compared to the proposal.

3.6. Cumulative and Secondary Impacts. Consideration of cumulative effects requires a broader perspective than examining just the direct and indirect effects of a proposed action. It requires that reasonably foreseeable future impacts be assessed in the context of past and present effects to each important resource. One of the most important aspects of cumulative effects assessment is that it requires consideration of how actions by others (including those actions completely unrelated to the proposed action) have and will affect the same resources. Cumulative environmental effects for the proposed facilities were assessed in accordance with guidance provided by the President's Council on Environmental Quality (USEPA, EPA 315-R-99-002, May 1999). This guidance provides a process for identifying and evaluating cumulative effects in NEPA analyses.

Scoping: The event having the greatest influence on the aquatic environment in the vicinity of the proposed site to date was the completion of Wilson Lake, transforming this section of Tennessee River into an impounded stream. According to the District's database, past DA permits issued in the vicinity of the project mainly involve bank stabilization, utility line crossings and private dock structures. Several other small jurisdictional determinations have been made by OP-F for wetland impacts for other developments in the vicinity. A DA permit was approved for the proposed Shoals Landing Marina, which would be located across the Town Creek embayment from the proposed development. This proposed marina could ultimately provide full service commercial marina facilities, such as boatslips, fuel, boat rentals, boat ramp, marina store, etc. No other permitted activities have occurred in the immediate vicinity of the proposed project.

For purposes of cumulative impact assessment, the spatial boundary (scope of work) has been broadened to consider effects of the work and its affects to others. The spatial boundary considered for regulatory purposes is normally in the general area of the proposed work. The site of the resort development was chosen on its proximity to the Tennessee River and Wilson Lake and adequate land for the development. Thus waterborne traffic to and from the site could reasonably be expected to utilize the Tennessee River for some distance downstream and upstream of the site. The numbers of personal and community facilities that may be added to Town Creek and Wilson Reservoir are limited by the available private land for development land. Both the Town Creek embayment and Wilson pool are wide bodies of water and saturation

or unsafe conditions for recreational and commercial boaters seems unlikely. However, it is feasible that at some point in the future the additional recreational boating traffic may create a significant impact to TVA's aging lock infrastructure. These structures are past their 50-year design life and are expensive to maintain. "Locking through," is a free service for recreational boats used by thousands every year. The lock facilities are owned by TVA and operated by the U.S. Army Corps of Engineers. Both agencies spend millions of dollars annually on lock maintenance on the Tennessee River.

Secondary impacts expected to result from the new project would be providing enhanced water-related recreation and residential opportunities in an area undergoing development (residential, commercial, industrial, and highway improvement). It is anticipated that the new dock facilities with the residential development could further encourage additional development. However, this area is already experiencing growth and development of residential and commercial facilities. In addition, nearby highways were just recently constructed to accommodate increased traffic in the area, especially for the new Robert Trent Jones Golf Course, which is located nearby to the proposed development. The continued growth of the area makes the conversion of undeveloped property into commercial and/or residential developments virtually inevitable, especially in an area where a property owner could possibly benefit economically from the sale of the land. Cumulative impacts could result from permitting the proposed work, in that other phases of this project could be constructed. However, the proposed project utilizes almost all of the property and is constrained in size by property lines, Town Creek, and the Tennessee River. Also, this area is currently experiencing development, so any additional construction would be consistent with the existing land use and expected to be constructed in accordance with any other federal, state and local regulations. This project and any other proposed projects would be evaluated on a case-by-case basis for DA and TVA permits if waters of the U.S. were proposed to be filled.

Projecting the reasonably foreseeable future actions is difficult at best. Clearly, the proposed action is reasonably foreseeable. However, the actions by others that may affect the same resources are not as clear. Projections of those actions must rely on judgment as to what is reasonable based on existing trends and, where available, projections from qualified sources. Reasonably foreseeable does not include unfounded or speculative projections. In this case, reasonably foreseeable future actions include:

- The proposed dock facilities and residential development requesting to expand the resort. The residential development would likely take place whether or not the dock and dredging permits are issued,
- Other existing docking facilities and residential/commercial developments in the vicinity requesting to expand their development. This is primarily affecting undeveloped land in the area. The proposed permits are not affecting unique or uncommon undeveloped lands, and would not contribute to these ongoing impacts,
- Increased recreational navigation traffic generated from this and future dock facilities in the area,

- Increased traffic and transportation patterns generated from this project, and construction and maintenance of these new highways,
- Continued growth in population and residential development,
- Continued growth of commercial development,
- Continuation of existing land use patterns in the area and/or additional development of the area,
- Continued increase in utilization of the fishery resource.

Issuance of dock facilities and/or marina permits would not likely adversely affect these ongoing impacts on natural resources in the area. In most cases, these activities would occur whether or not the permits were issued. In addition, continued application of environmental protection requirements such as those under the Clean Water Act, and implementation of various programs to deal with non-point sources of water pollution and to restore degraded environments would mitigate the ongoing impacts of these activities.

4.0 Alternatives

4.1. Introduction. This section discusses alternatives as required by 33 CFR 320.4(a)(2). The alternatives that were given detailed consideration are listed in the following section.

4.2. Description of Alternatives. Only reasonable alternatives have been considered in detail, as specified in 40 CFR 1508.14(a). As mentioned in paragraph 1.3 above, the alternatives that are available to the Corps and were given detailed consideration are: 1) no federal action, 2) issue the Section 10 permit as proposed by the applicant, 3) review other locations for the proposed work which would require Section 10 permit, or 4) issue the Section 10 permit subject to special commitments and conditions. The piers, community docks, and dredging for boat access channel would be defined as a water dependent project in 40 CFR 231.10(a)(3) and clearly requires complete access to a navigable and public waterway. The proposed site has been selected to meet the project purpose and need, is the least environmental damaging and the most practicable alternative because it provides the available space for the development, is an expansion of an existing resort, and is available and feasible considering cost, existing technology, and logistics based on the overall purpose of the project.

a. **No Action.** This alternative would involve denial of the applicant's request for a DA and TVA permit to perform the proposed work. No Action would also result if the applicant withdraws the application for a DA and TVA permit. Under this alternative, the proposed work would not be performed. However, the no-action alternative for this proposal would not preclude other land-transforming activities with the potential for greater environmental impacts from occurring that do not require DA and/or TVA approval.

b. The Applicant's Proposed Action (as described in Public Notice 06-113, Appendix A). The proposed work consists of the construction of Phase II development for Doublehead Resort. The overall plan would involve construction of two community boatdocks, two public fishing piers, 19 private day use piers, and dredging for boat access channel. Each community dock would consist of 35 slips, each measuring 10' by 30'. Both community docks would extend out into the lake a maximum of 140' from the normal summer pool (NSP) 507.5'. Twenty-five private piers would be constructed for boat day use. Each pier would measure 12' by 12' and each would extend out into the lake a different length, but with a maximum length of 150' out from the NSP shoreline. Two fishing piers are proposed for public recreational use. Each pier would measure 30' by 30' and extend out into the lake a maximum of 150' from the NSP shoreline. Neither the community, public and/or private docks would be covered. Dredging for a boat access channel is proposed and would measure approximately 2,000' in length by 100' wide. The bottom material would be dredged from a barge by clamshell and disposed of upland on the Doublehead property. The dredged material would be contained and stabilized to prevent runoff. No dredged material would be placed within other waters of the U.S and/or wetlands. The applicant had a wetlands delineation performed of the property. The wetlands boundaries, approximately 8-acres, are marked on the overall plan view. The applicant indicated that no fill material would be placed within the wetland areas. The applicant proposed to construct boardwalks over the wetlands to access the community, public, and private docks. The wetland areas would be left undisturbed.

The purpose of the proposed work would be to allow the expansion of residential lots with private piers and community docks. The work would allow an increase in the water related opportunities in the Doublehead Resort for the new residents.

c. Other Locations for the Dock Facilities. In order to meet the applicant's needs and desire for the proposed project, this alternative would involve looking at other locations along the Tennessee River on Wilson Lake. The proposed piers, fishing piers, and community docks with the development would have to be adequate size to fulfill the applicant's purpose, economically viable, provide adequate water depth for navigation, create a safe area to protect vessels from wave wash, and not create a navigation hazard for commercial and/or recreational facilities.

d. The Applicant's Proposed Action with Special Conditions. This alternative would authorize the proposed work as stated in b. above with special conditions recommended to avoid, minimize, or mitigate the environmental impacts. In accordance with CFR 320.4(r), review of the proposed action has revealed mitigation measures which would avoid and/or minimize the environmental impacts of the proposed action to the extent possible. Recommended mitigation measures and/or special conditions to minimize environmental impacts for the proposed action are listed in Section 5.4.

4.3. Comparison of Alternatives.

a. No Action. With this alternative, the proposed work would not be performed and would not impact Town Creek and/or Tennessee River. The applicant's proposed dock facilities and dredging with associated lakeside residences and economic benefit to the area would not be realized. Thus, the impacts and benefits associated with the proposed action would not occur. However, this tract of land could be developed by other activities not requiring DA and/or TVA approval, with resulting adverse impacts that could be similar or greater than those associated with this proposal.

b. The Applicant's Proposal. This alternative would result in the construction of the dock facilities and dredging for boat access channel with associated facilities and residential homes. The community docks would involve a large area of the Town Creek embayment that is considered public waters. However, the dock facilities would be for the homeowner's and guests enjoyment, which would serve a large number of boaters in the area. Some of the homes within the development are for rent, which would allow transient docking for the persons renting the cabins. In the past, the resort has offered boats and canoes for rent for the public use. Other impacts would involve aquatic habitat, wildlife, aesthetics, and turbidity increases during dredging. The applicant proposed measures through construction practices and operation and maintenance activities to minimize the environmental impacts to water quality. Also, the dredging activity has been designed to avoid impacts to the nearby shallow water habitat areas. Special conditions have been recommended to further minimize any impacts on navigation, safety, wetlands, and cultural resources on the property. Beneficial impacts would include economic benefits to the applicant and Lawrence County and the surrounding areas; the increased work force opportunities for the contractors and sub-contractors; increased sale of goods and materials; enhanced water-related recreation opportunities from additional moorage, transient docking, and boat and canoe rental. No impacts to archaeological and/or historical sites would occur from the proposed work with the special conditions. In addition, the work would not impact any threatened or endangered species.

c. Other Locations for the Dock Facilities: The area the applicant has deemed necessary for the development is Wilson Lake. Therefore, other locations to be reviewed would be limited to Wilson Lake. This proposed project site would have to be adequate size to fulfill the applicant's purpose, economically viable, provide adequate water depth for navigation, create a safe area to protect vessels from wave wash, and not create a navigation hazard for commercial and/or recreational facilities. The applicant currently owns the property and runs an existing resort. The proposed work would be an expansion (Phase II) of the existing resort development. The proposed site of the development was selected by the applicant due to the existing resort development, access to the Tennessee River, adequate navigation channel, and it creates a safe area to moor boats. Therefore, the proposed site of the project would meet the needs and purpose of the applicant while providing substantial public benefits.

d. The Applicant's Proposal with Special Conditions. Special conditions have been recommended throughout this document to minimize impacts on water quality, cultural resources, wetlands, and navigation. These conditions are discussed in the sections above and would be included in the DA and TVA permits, if issued. This alternative would authorize the proposed work as stated in c. above with special conditions added to avoid or minimize the environmental impacts (See Section 5.4 for list of recommended special conditions).

5.0. Findings

5.1. Clean Air Act Determination. The proposed project has been analyzed for conformity applicability, pursuant to Section 176c of the Clean Air Act. It has been determined that the proposed activity would not exceed de minimus levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR par 93.153. Any later indirect emissions caused by the proposed activity are generally not within the DA continuing program responsibility, these emissions cannot be practically controlled by the DA, and, for these reasons, a conformity determination is not required for a permit.

5.2. Consideration of Public Comments. The comments received in response to the public notice have been considered and addressed in this Environmental Assessment (EA) and in the decision-making process for a permit. No adverse comments were received to the proposed work. All issues and concerns have been addressed throughout the document. No requests for a public hearing were received in response to the proposed work.

5.3 Environmental Justice. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. Through our public involvement process, we have offered the general public, including low-income and minority populations in the involved community, an opportunity to participate in a decision-making process that could affect their well-being. The proposed activities would only result in minor adverse effects and could increase adjacent property values. Based on direct observation, the project is located in an area that includes low-income and minority individuals. If any impact on minority or low-income populations does occur, it would not have disproportionately high and adverse human health or environmental effects.

5.4. Special Conditions to Minimize Environmental Impacts. Recommended special conditions for inclusion in the DA permit to significantly minimize or avoid the potential impacts to the environment follows:

1. The work must be in accordance with any plans attached to this permit. Justification: Recommended at 33 CFR 325, Appendix A.
2. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States. Justification: Recommended at 33 CFR 325, Appendix A.
3. You must have a copy of this permit available on the site and ensure all contractors are aware of its conditions and abide by them. Justification: Recommended at 33 CFR 325, Appendix A.
4. This permit also authorizes the periodic maintenance dredging of the project herein approved which may be performed under this permit for ten years from the date of issuance of this permit. You must advise this office in writing at least one month before you intend to undertake any maintenance dredging. Justification: Recommended at 33 CFR 325, Appendix A.
5. All disturbed areas should be stabilized with straw and seeding and/or riprap as soon as practicable after construction. Justification: To minimize sediment runoff into the stream.
6. At least a 10' wide undisturbed buffer should be maintained between the dredging activities and the NSP shoreline. Justification: To minimize impacts on shallow water aquatic habitat.
7. No dredging activities should be conducted from 1 April through 15 June. Also, the dredging should be performed during low water periods and/or NWP elevations. Justification: To minimize impacts on fish spawning season.
8. The disposal areas must be completely stabilized by vegetation/sodding, prior to pumping dredged material. The Corps of Engineers (Amy Robinson at 615-369-7509) or TVA should be contacted to inspect the disposal sites for proper stabilization prior to use. Justification: To ensure the disposal areas have been properly stabilized and constructed prior to use.
9. You must perform the following special conditions to minimize impacts on the wetlands located on the property: Justification: To reduce potential impacts on existing wetlands.
 - There shall be no removal, destruction, cutting, trimming, mowing, alteration or spraying with biocides of any vegetation, nor any disturbance or change in the natural habitat in any manner without prior written approval from the Tennessee Valley Authority. There shall be no planting of non-native vegetation.
 - There shall be no agricultural, commercial, or industrial activity undertaken or allowed. Furthermore, nothing herein shall preclude the maintenance, repair, or replacement of existing utilities located in the wetland area or any activity in connection therewith.

- There shall be no filling, excavating, dredging, mining, or drilling; nor removal of topsoil, sand, gravel, rock, minerals or other materials; nor any dumping of ashes, trash, garbage, or of any other material; and no changing of the topography of the landing any manner.
- There shall be no construction or placing of buildings, mobile homes, advertising signs billboards, or other advertising material, or any other structures.
- There shall be no disruption of flow pattern by damming, dredging or construction in any free flowing water body, nor construction of any weirs, groins, or dikes in any marshland, nor any manipulation nor alteration of natural water courses, ponds, marshes, wetlands or other water bodies nor any activities detrimental to water purity.
- Other than utility vehicles, there shall be no operation of dune buggies, motorcycles, all-terrain vehicles, or any other types of motorized or non-motorized vehicles in the wetland area outside of designated path to the pavilion, playground and fishing piers.
- There shall be no construction or placing of temporary or permanent buildings, bridges, docks, piers, or other structures without prior written approval from TVA and the Corps of Engineers.
- The wetland boundary shall be marked in a sufficient manner as to make users and property owners aware of the area and restrictions of activities within the area.
- S.S.I. Doublehead will not sell, assign, or otherwise alienate the wetland as delineated on the enclosed map to a third party, in whole or in part, without placing a restriction in the transfer agreement that prevents disturbance of the wetland area.

10. You must comply with the following conditions to minimize any navigation impacts:

Justification: To minimize any potential navigation impacts.

- The applicant is advised that the facilities will be located adjacent to a recreational channel and may be subject to wave wash from passing vessels and possible collision damage.
- The two community slip structures are not to exceed 140' in lakeward extent and should be located as indicated on the plan submitted in the application.
- The two fishing piers are not to exceed 150' in lakeward extent and should be located as indicated on the plan submitted in the application.
- Private, individual day-use docks are not to exceed 140' in total lakeward extent and should be located as indicated on the plan submitted in the application.
- Any floating structures should be securely anchored to prevent them from floating free during a flood event.
- Any fixed structures must have a floor elevation at least 1.5 feet above the normal summer pool elevation of 507.5' above msl.

11. You must comply with the following conditions to avoid impacts to the cultural resource site on the property: Justification: To minimize any impacts to cultural resources.

- A 100-foot protective buffer must be established around Site 1La141 which would be marked by a permanent obstructive barrier. The site and barrier must be left undisturbed.

- Doublehead must not sell, assign or otherwise alienate Site 1La141 and the buffer area to a third party, in whole or in part, without placing a restriction in the transfer agreement that prevents disturbance of the site and buffer area.

12. A preconstruction meeting should be performed with the contractor, TVA, and the Corps of Engineers to discuss the proposed work and the permit conditions. You should be contact this office at least two weeks in advance to set up this meeting. Justification: To ensure compliance with permit conditions.

5.5. Findings of No Significant Impact. Based on a full consideration of the EA, information obtained from cooperating federal/state agencies, and comments received from the interested public, I have concluded that issuance or denial of the requested permit would not constitute a major federal action that would significantly affect the quality of the human environment. This constitutes a Findings of No Significant Impact (FONSI); therefore, the preparation of an Environmental Impact Statement is not required. This FONSI was prepared in accordance with paragraph 7a of Appendix B, 33 CFR 325 dated 3 February 1988 (effective 4 March 1988).

5.6. Public Interest Determination. I have reviewed the application, responses to the Public Notice, and the EA. No adverse comments or requests for public hearings were received in response to the proposed work. All issues raised by other agencies have been resolved throughout the permitting process and have been addressed throughout the EA. AHC cleared the proposed project with the incorporation of special conditions to avoid the cultural resource site on the property. USFWS indicated that no threatened or endangered species would be impacted from the project. Special conditions have been recommended for inclusion in the DA and TVA permits which would minimize the impacts on aesthetics, water quality, aquatic habitat, cultural resources, wetlands, and navigation. Compliance with these conditions and the others would minimize to the extent possible the environmental impacts. Therefore, the proposed work would result in only minor impacts to the environment. The proposed work would economically benefit the applicant from the increased property values during the sale of the property and the new homeowners by providing lake access, boat moorage, and enhanced lake recreational opportunities. The contractors and sub-contractors are expected to economically benefit from the increased construction opportunities. The construction of the marina facilities would increase the work force opportunities in the area. Also, the operation and maintenance of the facilities would require additional jobs and labor. In addition, the construction of the residential homes would require a large amount of jobs for an extended period of time. Thus, the new development facilities are expected to economically benefit the applicant, homeowners, contractors, local work force, restaurants, retail stores, material suppliers, county tax base, etc.

Having weighed these potential benefits that may be accrued against the reasonably foreseeable detrimental effects, I conclude that permit issuance would not be contrary to the public interest.

FOR THE COMMANDER:

Date

Bradley N. Bishop
Chief, Western Regulatory Section
Operations Division